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Implementing The Tracking Network

breakout ABSTRACT

Abstract No. 46

TITLE

INDOOR AIR QUALITY TESTING AND PEDIATRIC ASTHMA SURVEILLANCE IN MASSACHUSETTS PUBLIC SCHOOLS

TRACK

Network Content

OBJECTIVES

To demonstrate the linkage of IAQ outcomes and asthma surveillance outcomes in select public schools in Massachusetts.

SUMMARY

The Massachusetts Department of Public Health, Center for Environmental Health (MDPH/CEH) has implemented three years of EPHT pediatric asthma in schools and the concomitant utility of conducting indoor air quality (IAQ) testing in select public schools. Tracking childhood asthma for epidemiological purposes has historically been limited to hospital discharge data, emergency room data, BRFSS data and insurance data. Beginning in 2002, the pediatric asthma tracking project surveyed nearly 2200 schools each year. School participation rates increased each year (70%, 78%, 83%), with an annual prevalence rate of 9.2%, 9.5% and 10% respectively.

Simultaneously, the MDPH/CEH/IAQ team examined classrooms in public school buildings for issues related to indoor air quality. For each of the three survey years, the IAQ team conducted 40, 40 and 25 school assessments respectively. Quantitative measurements focused on carbon dioxide levels, particulate levels for particulate matter with a diameter of 2.5 micrometers (um) or less, and relative humidity levels. Qualitative variables associated with moisture intrusion were also evaluated (e.g. visible mold growth, wetting of wall board). Linkage analysis was conducted to generate correlation coefficients for each quantitative IAQ variable and asthma prevalence in schools. Results of this linkage will be discussed.

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